

Connecting via Winsock to STN at pto-stn on port 23

Welcome to STN International! Enter x:X

LOGINID:SSPTATEU1651

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

|      |    |        |   |
|------|----|--------|---|
| NEWS | 1  |        | Web Page for STN Seminar Schedule - N. America  |
| NEWS | 2  | OCT 04 | Precision of EMBASE searching enhanced with new chemical name field   |
| NEWS | 3  | OCT 06 | Increase your retrieval consistency with new formats or for Taiwanese application numbers in CA/Caplus.   |
| NEWS | 4  | OCT 21 | CA/Caplus kind code changes for Chinese patents increase consistency, save time   |
| NEWS | 5  | OCT 22 | New version of STN Viewer preserves custom highlighting of terms when patent documents are saved in .rtf format   |
| NEWS | 6  | OCT 28 | INPADOCDB/INPAFAMDB: Enhancements to the US national patent classification.   |
| NEWS | 7  | NOV 03 | New format for Korean patent application numbers in CA/Caplus increases consistency, saves time.  |
| NEWS | 8  | NOV 04 | Selected STN databases scheduled for removal on December 31, 2010   |
| NEWS | 9  | NOV 18 | PROUSDDR and SYNTHLINE Scheduled for Removal December 31, 2010 by Request of Prous Science  |
| NEWS | 10 | NOV 22 | Higher System Limits Increase the Power of STN Substance-Based Searching  |
| NEWS | 11 | NOV 24 | Search an additional 46,850 records with MEDLINE backfile extension to 1946   |
| NEWS | 12 | DEC 14 | New PNK Field Allows More Precise Crossover among STN Patent Databases  |
| NEWS | 13 | DEC 18 | ReaxysFile available on STN   |
| NEWS | 14 | DEC 21 | CAS Learning Solutions -- a new online training experience  |
| NEWS | 15 | DEC 22 | Value-Added Indexing Improves Access to World Traditional Medicine Patents in Caplus  |
| NEWS | 16 | JAN 24 | The new and enhanced DPCI file on STN has been released   |
| NEWS | 17 | JAN 26 | Improved Timeliness of CAS Indexing Adds Value to USPATFULL and USPAT2 Chemistry Patents  |
| NEWS | 18 | JAN 26 | Updated MeSH vocabulary, new structured abstracts, and other enhancements improve searching in STN reload of MEDLINE  |
| NEWS | 19 | JAN 28 | CABA will be updated weekly   |
| NEWS | 20 | FEB 23 | PCTFULL file on STN completely reloaded   |
| NEWS | 21 | FEB 23 | STN AnaVist Test Projects Now Available for Qualified Customers   |
| NEWS | 22 | FEB 25 | LPCI will be replaced by LDPCI  |
| NEWS | 23 | MAR 07 | Pricing for SELECTing Patent, Application, and Priority Numbers in the USPAT and IFI Database Families is Now Consistent with Similar Patent Databases on STN |
| NEWS | 24 | APR 26 | Expanded Swedish Patent Application Coverage in CA/Caplus Provides More Current and Complete Information  |
| NEWS | 25 | APR 28 | The DWPI (files WPINDEX, WPIDS and WPIX) on STN have been enhanced with thesauri for the European Patent Classifications                                      |



=> s coenzyme q10/cn  
L1 1 COENZYME Q10/CN

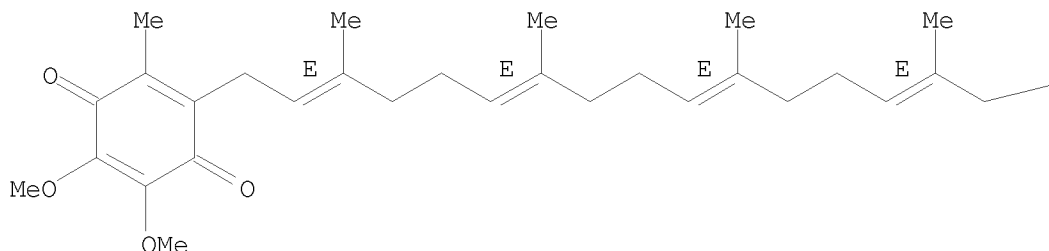
=> d

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2011 ACS on STN  
RN 303-98-0 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 2,5-Cyclohexadiene-1,4-dione, 2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-  
3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-  
tetracontadecaen-1-yl]-5,6-dimethoxy-3-methyl- (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2,5-Cyclohexadiene-1,4-dione, 2-(3,7,11,15,19,23,27,31,35,39-decamethyl-  
2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl-,  
(all-E)-  
CN 2,5-Cyclohexadiene-1,4-dione, 2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-  
3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-  
tetracontadecaenyl]-5,6-dimethoxy-3-methyl- (9CI)  
CN Coenzyme Q10 (6CI)  
CN p-Benzoquinone, 2-(3,7,11,15,19,23,27,31,35,39-decamethyl-  
2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl-  
(8CI)  
OTHER NAMES:  
CN (all-E)-2-(3,7,11,15,19,23,27,31,35,39-Decamethyl-  
2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl-2,5-  
cyclohexadiene-1,4-dione  
CN Aqua Q 10L10  
CN Aqua Q10  
CN Bio-Quinon  
CN Bio-Quinone Q10  
CN CoQ10  
CN Cosmesome Q 10  
CN Ensorb  
CN Kaneka Q10  
CN Kudesan  
CN Li-Q-Sorb  
CN Liquid-Q  
CN Neuquinon  
CN Neuquinone  
CN NSC 140865  
CN PureSorb Q 40  
CN Q 10AA  
CN Q-absorb  
CN Q-Gel  
CN Q-Gel 100  
CN Ubidecarenone  
CN Ubiquinone 10  
CN Ubiquinone 50  
CN Ubiquinone Q10  
CN Unispheres Q 10  
CN Vitamin Q  
FS STEREOSEARCH  
DR 13448-14-1, 55127-92-9, 55870-43-4  
MF C59 H90 O4  
CI COM  
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO,  
CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE,  
IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, PIRA, PS,  
REAXYSFILE\*, RTECS\*, TOXCENTER, USAN, USPAT2, USPATFULL, USPATOLD, VETU  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*, WHO

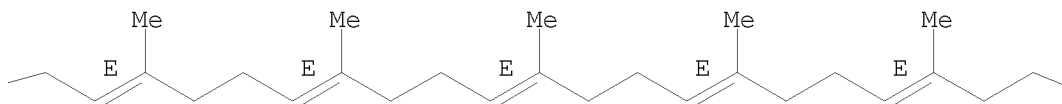
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



PAGE 1-C



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6130 REFERENCES IN FILE CA (1907 TO DATE)

81 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6177 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2011 ACS on STN

RN 303-98-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2,5-Cyclohexadiene-1,4-dione, 2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaen-1-yl]-5,6-dimethoxy-3-methyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,5-Cyclohexadiene-1,4-dione, 2-(3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl-, (all-E)-

CN 2,5-Cyclohexadiene-1,4-dione, 2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl]-5,6-dimethoxy-3-methyl- (9CI)

CN Coenzyme Q10 (6CI)

CN p-Benzoquinone, 2-(3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl- (8CI)

OTHER NAMES:

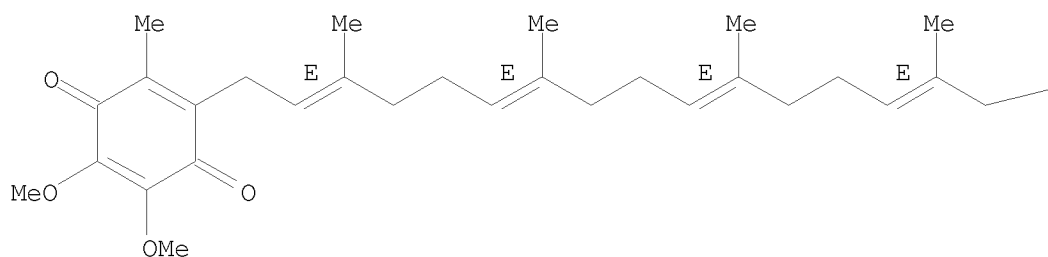
CN (all-E)-2-(3,7,11,15,19,23,27,31,35,39-Decamethyl-

2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione

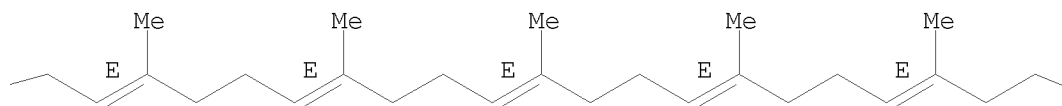
CN Aqua Q 10L10  
CN Aqua Q10  
CN Bio-Quinon  
CN Bio-Quinone Q10  
CN CoQ10  
CN Cosmesome Q 10  
CN Ensorb  
CN Kaneka Q10  
CN Kudesan  
CN Li-Q-Sorb  
CN Liquid-Q  
CN Neuquinon  
CN Neuquinone  
CN NSC 140865  
CN PureSorb Q 40  
CN Q 10AA  
CN Q-absorb  
CN Q-Gel  
CN Q-Gel 100  
CN Ubidecarenone  
CN Ubiquinone 10  
CN Ubiquinone 50  
CN Ubiquinone Q10  
CN Unispheres Q 10  
CN Vitamin Q  
FS STEREOSEARCH  
DR 13448-14-1, 55127-92-9, 55870-43-4  
MF C59 H90 O4  
CI COM  
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, PIRA, PS, REAXYSFILE\*, RTECS\*, TOXCENTER, USAN, USPAT2, USPATFULL, USPATOLD, VETU  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

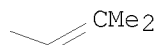
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6130 REFERENCES IN FILE CA (1907 TO DATE)  
 81 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 6177 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus  
 COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 12.04      | 12.27   |

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 15:20:55 ON 23 MAY 2011  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2011 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 May 2011 VOL 154 ISS 22  
 FILE LAST UPDATED: 22 May 2011 (20110522/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2011  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2011

CAplus now includes complete International Patent Classification (IPC) reclassification data for the fourth quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l1 and melanoma

6177 L1  
 50451 MELANOMA  
 4724 MELANOMAS  
 19 MELANOMATA  
 51075 MELANOMA  
 (MELANOMA OR MELANOMAS OR MELANOMATA)

L2 17 L1 AND MELANOMA

=> d ti total

- L2 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Methods for treatment of oncological disease using an epimetabolic shifter (coenzyme Q10)
- L2 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Methods for the diagnosis of oncological disorders using epimetabolic shifters, multidimensional intracellular molecules, or environmental influencers
- L2 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Methods for treatment of oncological disorders using epimetabolic shifters, multidimensional intracellular molecules, or environmental influencers
- L2 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Methods for promoting cellular health and treatment of cancer with compounds including natural products
- L2 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Drug Effects Viewed from a Signal Transduction Network Perspective
- L2 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Methods and use of exogenous coenzyme Q10, or a metabolite thereof, for inducing apoptosis in cancer cells
- L2 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Nonviral vectors for delivering polynucleotides to target tissue and uses in gene therapy
- L2 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Inhibitory effect on melanin formation, collagenase and elastase activity by synthesized coenzyme Q10 derivatives
- L2 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Natural product compositions for promoting cellular health and treatment of cancer
- L2 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Topical formulations comprising lipophilic bioactive agents having enhanced bioavailability
- L2 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Foamable vehicle and vitamin and flavonoid pharmaceutical compositions thereof for treatment of skin and other disorders
- L2 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Quinones are reduced by 6-tetrahydrobiopterin in human keratinocytes, melanocytes, and melanoma cells
- L2 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Recombinant interferon  $\alpha$ -2b and coenzyme Q10 as a postsurgical adjuvant therapy for melanoma: a 3-year trial with recombinant interferon- $\alpha$  and 5-year follow-up
- L2 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Topically applied glucosamine sulfate and all its related, precursor, and derivative compounds significantly increases the skin's natural production of hyaluronic acid for the rejuvenation of healthier younger-looking skin; while phosphatidylcholine is required to replace its deficiency caused by

topical dimethylaminoethanol (DMAE)

L2 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer

L2 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Enhancing effect of coenzyme Q10 on immunorecovery with BCG in tumor-bearing mice in relation to changes in coenzyme Q content and ATPase activity in spleen lymphocytes of tumor-bearing rats

L2 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
TI Enhancing effect of coenzyme Q10 on immunorestoration with Mycobacterium bovis BCG in tumor-bearing mice

=> d ibib abs 6, 10-17

L2 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
ACCESSION NUMBER: 2009:1260432 CAPLUS  
DOCUMENT NUMBER: 151:418146  
TITLE: Methods and use of exogenous coenzyme Q10, or a metabolite thereof, for inducing apoptosis in cancer cells  
INVENTOR(S): Narain, Niven Rajin; Persaud, Indushekhar; McCook, John Patrick  
PATENT ASSIGNEE(S): Cytotech Labs, LLC, USA  
SOURCE: PCT Int. Appl., 54pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.   | DATE       |
|---|------|----------|---|------------|
| WO 2009126764   | A1   | 20091015 | WO 2009-US39992   | 20090409   |
| W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW |      |          |   |            |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |      |          |   |            |
| AU 2009233785   | A1   | 20091015 | AU 2009-233785  | 20090409   |
| CA 2721071  | A1   | 20091015 | CA 2009-2721071   | 20090409   |
| KR 2010136997   | A    | 20101229 | KR 2010-7025030   | 20090409   |
| EP 2271325  | A1   | 20110112 | EP 2009-730148  | 20090409   |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, RS   |      |          |   |            |
| PRIORITY APPLN. INFO.:  |      |          | US 2008-44085P  | P 20080411 |
|   |      |          | WO 2009-US39992   | W 20090409 |
| AB  |      |          | The invention provides a method for inducing apoptosis in a cancer cell by delivery of exogenous coenzyme Q10 or metabolites thereof in a pharmaceutically acceptable carrier to effectuate cell contact of |            |



endogenous coenzyme Q10 or metabolites thereof in addition to but not limited to mevalonic acid and oleic acid to form an intracellular complex. The invention also provides a method for modulating the p53 pathway and Bcl-2 protein family in a manner that restores the apoptotic potential to a cancer cell by delivery of coenzyme Q10 in a pharmaceutically acceptable carrier. The invention further provides a method to specifically normalize the ratio of pro-apoptotic and anti-apoptotic members of the Bcl-2 gene family in a proportion to re-program a cancer cell to undergo apoptosis.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2008:1156621 CAPLUS

DOCUMENT NUMBER: 149:409737

TITLE: Topical formulations comprising lipophilic bioactive agents having enhanced bioavailability

INVENTOR(S): McCook, John Patrick; Narain, Niven Rajin; Persaud, Indushekhar

PATENT ASSIGNEE(S): Pathfinder Management, Inc., USA

SOURCE: PCT Int. Appl., 68pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2008116135          | A2   | 20080925 | WO 2008-US57786 | 20080321   |
| WO 2008116135          | A3   | 20081224 |                 |            |
| W:                     | AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW |          |                 |            |
| RW:                    | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA   |          |                 |            |
| AU 2008228764          | A1   | 20080925 | AU 2008-228764  | 20080321   |
| CA 2680825             | A1   | 20080925 | CA 2008-2680825 | 20080321   |
| US 20080233183         | A1   | 20080925 | US 2008-52825   | 20080321   |
| EP 2136787             | A2   | 20091230 | EP 2008-732635  | 20080321   |
| R:                     | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR   |          |                 |            |
| NO 2009003032          | A  | 20091022 | NO 2009-3032    | 20090921   |
| MX 2009010170          | A  | 20091126 | MX 2009-10170   | 20090922   |
| PRIORITY APPLN. INFO.: |  |          | US 2007-919554P | P 20070322 |
|                        |  |          | WO 2008-US57786 | W 20080321 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present disclosure provides compns. suitable for delivering lipophilic bioactive agents. The compns. may be utilized to treat numerous diseases and conditions that would benefit from the application of a lipophilic bioactive agent. Thus, a cream contained Polysorbate-80 25.000, ubidecarenone 21.000, propylene glycol 10.000, phenoxyethanol 0.500, water 35.500, and lecithin 8.000%.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

L2 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2008:349028 CAPLUS

DOCUMENT NUMBER: 148:338999

TITLE: Foamable vehicle and vitamin and flavonoid  
pharmaceutical compositions thereof for treatment of  
skin and other disorders

INVENTOR(S): Tamarkin, Dov; Friedman, Doron; Eini, Meir; Berman,  
Tal; Schuz, David

PATENT ASSIGNEE(S): Foamix Ltd., Israel

SOURCE: U.S. Pat. Appl. Publ., 57pp., Cont.-in-part of U.S.  
Ser. No. 430,599.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 37

PATENT INFORMATION:

| PATENT NO.     | KIND   | DATE     | APPLICATION NO. | DATE     |
|----------------|--|----------|-----------------|----------|
| US 20080069779 | A1   | 20080320 | US 2007-900072  | 20070910 |
| US 7820145     | B2   | 20101026 | US 2004-835505  | 20040428 |
| US 20050031547 | A1   | 20050210 |                 |          |
| AU 2004313285  | A1   | 20050929 | AU 2004-313285  | 20041216 |
| ZA 2005007018  | A  | 20080227 | ZA 2005-7018    | 20041216 |
| US 20060275218 | A1   | 20061207 | US 2006-430599  | 20060509 |
| US 7704518     | B2   | 20100427 |                 |          |
| AU 2006298442  | A1   | 20070412 | AU 2006-298442  | 20060509 |
| CA 2609953     | A1   | 20070412 | CA 2006-2609953 | 20060509 |
| WO 2007039825  | A2   | 20070412 | WO 2006-IB3628  | 20060509 |
| WO 2007039825  | A3   | 20080306 |                 |          |
| W:             | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:            | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA   |          |                 |          |
| AU 2006313443  | A1   | 20070518 | AU 2006-313443  | 20060509 |
| CA 2610662     | A1   | 20070518 | CA 2006-2610662 | 20060509 |
| WO 2007054818  | A2   | 20070518 | WO 2006-IB3519  | 20060509 |
| WO 2007054818  | A3   | 20081023 |                 |          |
| W:             | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW     |          |                 |          |
| RW:            | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA   |          |                 |          |

|   |    |          |                 |             |
|---|----|----------|-----------------|-------------|
| EP 1888032  | A2 | 20080220 | EP 2006-831721  | 20060509    |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,<br>IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,<br>BA, HR, MK, YU |    |          |                 |             |
| EP 1893396  | A2 | 20080305 | EP 2006-809259  | 20060509    |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,<br>IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,<br>BA, HR, MK, YU |    |          |                 |             |
| JP 2008540508   | T  | 20081120 | JP 2008-510676  | 20060509    |
| JP 2008540511   | T  | 20081120 | JP 2008-510679  | 20060509    |
| BR 2006012428   | A2 | 20101109 | BR 2006-12428   | 20060509    |
| BR 2006012448   | A2 | 20101123 | BR 2006-12448   | 20060509    |
| ZA 2007010621   | A  | 20090325 | ZA 2007-10621   | 20070101    |
| MX 2007014106   | A  | 20080829 | MX 2007-14106   | 20071109    |
| MX 2007014101   | A  | 20090213 | MX 2007-14101   | 20071109    |
| IN 2007KN04432  | A  | 20080125 | IN 2007-KN4432  | 20071203    |
| IN 2007KN04590  | A  | 20080704 | IN 2007-KN4590  | 20071203    |
| ZA 2007010619   | A  | 20090826 | ZA 2007-10619   | 20071204    |
| PRIORITY APPLN. INFO.:  |    |          |                 |             |
|   |    |          | US 2003-492385P | P 20030804  |
|   |    |          | US 2003-530015P | P 20031216  |
|   |    |          | US 2004-835505  | A2 20040428 |
|   |    |          | US 2005-679020P | P 20050509  |
|   |    |          | US 2006-784793P | P 20060321  |
|   |    |          | US 2006-430599  | A2 20060509 |
|   |    |          | US 2006-843140P | P 20060908  |
|   |    |          | WO 2006-IB3519  | W 20060509  |
|   |    |          | WO 2006-IB3628  | W 20060509  |

# ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Vitamin and flavonoid containing compns. are provided that are stable to degradation. Stabilized compns. include one or more features including a hygroscopic solvent at a sufficient concentration to provide an Aw value of the hygroscopic vitamin and or flavonoid containing composition of less than 0.9, antioxidant flavonoids that are preferentially oxidized before the vitamin, preservatives, and hydrocarbon propellants selected to reduce the oxidation potential of the composition. Thus, a foamable carrier was prepared containing propylene glycol 88.00, stearyl alc. 2.00, hydroxypropyl cellulose 2.00, Laureth-4 2.00, GMS NE 2.00, macrogol cetostearyl ether 1.00, and PPG-15 stearyl ether 3.00%, resp. Ascorbic acid and niacinamide were concurrently added to the carrier at 5.00% and 2.00%, resp. Following addition of a propellant, the foamable composition was obtained, which upon release from an aerosol pressurized container afforded foam of good quality. The foam was easily spread and immediately absorbed into the facial skin with no extensive rubbing.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L2 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2008:158782 CAPLUS

DOCUMENT NUMBER: 149:370392

TITLE: Quinones are reduced by 6-tetrahydrobiopterin in human keratinocytes, melanocytes, and melanoma cells

AUTHOR(S): Schallreuter, Karin U.; Rokos, Hartmut; Chavan, Bhaven; Gillbro, Johanna M.; Cemeli, Eduardo; Zothner, Carsten; Anderson, Diana; Wood, John M.

CORPORATE SOURCE: Clinical and Experimental Dermatology, Department of Biomedical Sciences, University of Bradford, Bradford, BD7 1DP, UK

SOURCE: Free Radical Biology

& Medicine (2008), 44(4), 538-546

CODEN: FRBMEH; ISSN: 0891-5849

PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Quinones are potentially dangerous substances generated from quinols via the intermediates semiquinone and H<sub>2</sub>O<sub>2</sub>. Low semiquinone radical concns. are acting as radical scavengers while high concns. produce reactive oxygen species and quinones, leading to oxidative stress, apoptosis, and/or DNA damage. Recently it was recognized that thioredoxin reductase/thioredoxin (TR/T) reduces both p- and o-quinones. In this report we examine addnl. reduction mechanisms for p- and o-quinones generated from hydroquinone (HQ) and coenzyme Q10 and by 17 $\beta$ -estradiol by the common cofactor 6(R)-L-erythro-5,6,7,8-tetrahydrobiopterin (6BH<sub>4</sub>). These results confirmed that TR reduces the p-quinone 1,4 benzoquinone and coenzyme Q10-quinone back to HQ and coenzyme Q10-quinol, resp., while 6BH<sub>4</sub> has the capacity to reduce coenzyme Q10-quinone and the o-quinone produced from 17 $\beta$ -estradiol. 6BH<sub>4</sub> is present in the cytosol and in the nucleus of epidermal melanocytes and keratinocytes as well as melanoma cells and colocalises with TR/T. Therefore we conclude that both mechanisms are major players in the prevention of quinone-mediated oxidative stress and DNA damage.

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2007:539153 CAPLUS

DOCUMENT NUMBER: 147:363216

TITLE: Recombinant interferon  $\alpha$ -2b and coenzyme Q10 as a postsurgical adjuvant therapy for melanoma: a 3-year trial with recombinant interferon- $\alpha$  and 5-year follow-up

AUTHOR(S): Rusciani, Luigi; Proietti, Ilaria; Paradisi, Andrea; Rusciani, Antonio; Guerriero, Giuseppe; Mammone, Alessia; De Gaetano, Andrea; Lipa, Silvio

CORPORATE SOURCE: Department of Dermatology, Catholic University of the Sacred Heart, Rome, Italy

SOURCE: Melanoma Research (2007), 17(3), 177-183

CODEN: MREEEH; ISSN: 0960-8931

PUBLISHER: Lippincott Williams

& Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Early surgical intervention remains the most successful therapy for melanoma. Despite better outcomes observed in soft tissue and lymph node metastases, the results of pharmacol. therapies are still disappointing. Currently, there is no standard adjuvant therapy for melanoma. Low concns. of coenzyme Q10 have been demonstrated in melanoma cell lines and in sera of melanoma patients. These data and the results of clin. trials of patients with other advanced cancers prompted this study of the long-term administration of an optimized dose of recombinant interferon  $\alpha$ -2b and coenzyme Q10 to patients with stage I and II melanoma. A 3-yr trial envisaging uninterrupted treatment with low-dose recombinant interferon  $\alpha$ -2b (9,000,000,000 IU weekly) administered twice daily and coenzyme Q10 (400 mg/day) was conducted in patients with stage I and II melanoma (American Joint Committee on Cancer criteria 2002) and surgically removed lesions. Treatment efficacy was evaluated as incidence of recurrences at 5 years. All patients completed the treatment and the follow-up. Significantly different rates of disease progression were observed in the interferon + coenzyme Q10 and the interferon group for both stages. No patient withdrew from the study owing to side effects.

Long-term administration of an optimized dose of recombinant interferon  $\alpha$ -2b in combination with coenzyme Q10 seemed to induce significantly decreased rates of recurrence and had negligible adverse effects. A survival study could not be undertaken owing to the small patient sample and the short duration of follow-up.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 92 THERE ARE 92 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2007:458900 CAPLUS

DOCUMENT NUMBER: 146:427847

TITLE: Topically applied glucosamine sulfate and all its related, precursor, and derivative compounds significantly increases the skin's natural production of hyaluronic acid for the rejuvenation of healthier younger-looking skin; while phosphatidylcholine is required to replace its deficiency caused by topical dimethylaminoethanol (DMAE)

INVENTOR(S): Jacobs, Eric

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 13pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| US 20070092469         | A1   | 20070426 | US 2006-527334  | 20060927   |
| PRIORITY APPLN. INFO.: |      |          | US 2005-729947P | P 20051026 |

AB A topical skin rejuvenation preparation comprises (i) about 0.001 to 50% of glucosamine (2-amino-2-deoxy- $\alpha$ -D-glucose), a hexosamine (6 carbon amino sugar), including its derivative and precursor compds., glucosamine sulfate, glucosamine hydrochloride, glucose-6-phosphate, acetyl glucosamine, fructose-6-phosphate, and glucosamine-6-phosphate to increase production of hyaluronic acid and collagen and to relieve wrinkles, increase the skin's natural production of hyaluronic acid, reverse the lack of suppleness, hydrate from within, erase spider veins, reduce varicose veins, lighten aging dark blotches ("liver spots"/lentigos, senile lentigines), decrease acne, and reduce under eye puffiness, (ii) 0.0001 to 50% of dimethylaminoethanol (DMAE) to increase skin muscle tone, and (iii) 0.01 to 30% of phosphatidylcholine to overcome deficiency created by application of DMAE in each cell's production of phosphatidylcholine, whose deficiency damages cell membranes, as well as mitochondrial and lysosome membranes.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L2 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2002:272794 CAPLUS

DOCUMENT NUMBER: 136:299725

TITLE: Therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer

INVENTOR(S): Rath, Matthias

PATENT ASSIGNEE(S): Rath, Matthias, Dr. Med., Neth.

SOURCE: Eur. Pat. Appl., 12 pp.

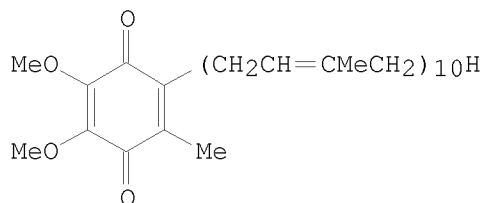
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE  | APPLICATION NO. | DATE       |
|--|------|---|-----------------|------------|
| EP 1195159   | A1   | 20020410  | EP 2000-121950  | 20001009   |
| EP 1195159   | B1   | 20060531  |                 |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY  |      |   |                 |            |
| AT 327747  | T    | 20060615  | AT 2000-121950  | 20001009   |
| PT 1195159   | E    | 20060831  | PT 2000-121950  | 20001009   |
| ES 2261136   | T3   | 20061116  | ES 2000-121950  | 20001009   |
| TR 2001000124  | A2   | 20020821  | TR 2001-124     | 20010117   |
| PRIORITY APPLN. INFO.:   |      |   | EP 2000-121950  | A 20001009 |
| AB A therapeutic composition for the prevention and treatment of different forms of cancer in very elevated dosages of ascorbic acid and salts, L-Lysine and L-proline, vitamins and trace elements. |      |   |                 |            |
| OS.CITING REF COUNT:   | 11   | THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)                                    |                 |            |
| REFERENCE COUNT:   | 11   | THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT |                 |            |

L2 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
ACCESSION NUMBER: 1979:400384 CAPLUS  
DOCUMENT NUMBER: 91:384  
ORIGINAL REFERENCE NO.: 91:83a,86a  
TITLE: Enhancing effect of coenzyme Q10 on immunorecovery with BCG in tumor-bearing mice in relation to changes in coenzyme Q content and ATPase activity in spleen lymphocytes of tumor-bearing rats  
AUTHOR(S): Kawase, Ichiro; Taniguchi, Takeshi; Saijo, Nagahiro; Niitani, Hisanobu  
CORPORATE SOURCE: Dep. Intern. Med., Natl. Cancer Cent. Hosp., Japan  
SOURCE: Gan to Kagaku Ryoho (1979), 6(2), 281-8  
CODEN: GTKRDX; ISSN: 0385-0684  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
GI



AB The activity of oligomycin-sensitive ATPase [9000-83-3] and the content of coenzyme Q in the spleen lymphocytes were decreased in tumor-bearing rats. Administration of coenzyme Q10 (I) [303-98-0] increased the ATPase level to a normal range. In mice bearing syngeneic melanoma, treatment with BCG increased cell-mediated immune responses, and this effect of BCG was enhanced by administration of coenzyme Q10.

L2 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2011 ACS on STN  
ACCESSION NUMBER: 1978:561394 CAPLUS  
DOCUMENT NUMBER: 89:161394

ORIGINAL REFERENCE NO.: 89:25019a,25022a  
 TITLE: Enhancing effect of coenzyme Q10 on immunorestitution  
 with Mycobacterium bovis BCG in tumor-bearing mice  
 AUTHOR(S): Kawase, Ichiro; Niitani, Hisanobu; Saijo, Nagahiro;  
 Sasaki, Haruo; Morita, Tatsuhide  
 CORPORATE SOURCE: Natl. Cancer Cent. Hosp., Tokyo, Japan  
 SOURCE: Gann (1978), 69(4), 493-7  
 CODEN: GANNA2; ISSN: 0016-450X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The effect of the addnl. treatment with coenzyme Q10 on immunorestitution  
 with M. bovis BCG in tumor-bearing mice was investigated. Cell-mediated  
 cytotoxicity in tumor-bearing mice against alloantigenic tumor cells was  
 determined by 51Cr release assay using spleen cells of C57BL/6N mice which had  
 been inoculated s.c. with syngeneic melanoma-B16 and immunized i.p. with  
 alloantigenic mastocytoma P815-X2 cells. The cell-mediated cytotoxicity  
 against mastocytoma P815-X2 cells was gradually depressed with the growth  
 of melanoma-B16. The depressed, cell-mediated cytotoxicity in  
 tumor-bearing mice recovered slightly by the treatment with BCG. The  
 recovery effect of BCG on the depressed, cell-mediated cytotoxicity was  
 significantly enhanced by the addnl. treatment with coenzyme Q10.  
 Coenzyme Q10 did not have an apparent effect on the depressed,  
 cell-mediated cytotoxicity in tumor-bearing mice. These results show that  
 coenzyme Q10 enhances the immunorestitution with BCG in tumor-bearing  
 mice.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
 (3 CITINGS)

=> file biosis medline

|                      |            |         |
|----------------------|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL   |
|                      | ENTRY      | SESSION |
| FULL ESTIMATED COST  | 46.80      | 59.07   |

|  |            |         |
|--|------------|---------|
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| CA SUBSCRIBER PRICE                        | -7.83      | -7.83   |

FILE 'BIOSIS' ENTERED AT 15:31:13 ON 23 MAY 2011  
 Copyright (c) 2011 The Thomson Corporation

FILE 'MEDLINE' ENTERED AT 15:31:13 ON 23 MAY 2011

=> s coenzyme (A) Q?

L3 7822 COENZYME (A) Q?

=> s ubiquinone or ubidecarenone or ubiquinol or ubisemiquinone

L4 17037 UBIQUINONE OR UBIDECARENONE OR UBIQUINOL OR UBISEMIQUINONE

=> s l3 or l4

L5 21419 L3 OR L4

=> s l5 and melanoma

L6 41 L5 AND MELANOMA

=> d ti total

L6 ANSWER 1 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Involvement of oxidative stress in simvastatin-induced apoptosis of murine  
 CT26 colon carcinoma cells.

L6 ANSWER 2 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Apoptotic affect of Ubiquinone precursors in melanoma.

L6 ANSWER 3 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI NORMALIZATION OF BCL-2 FAMILY MEMBERS IN BREAST CANCER BY COENZYME Q10.

L6 ANSWER 4 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Induction of p53 by Coenzyme Q10 via modulation of mdm2 and p14.

L6 ANSWER 5 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Quinones are reduced by 6-tetrahydrobiopterin in human keratinocytes, melanocytes, and melanoma cells.

L6 ANSWER 6 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Clinical complete long-term remission of a patient with metastatic malignant melanoma under therapy with indisulam (E7070).

L6 ANSWER 7 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Recombinant interferon alpha-2b and coenzyme Q(10) as a postsurgical adjuvant therapy for melanoma: a 3-year trial with recombinant interferon-alpha and 5-year follow-up.

L6 ANSWER 8 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Attenuation of tumor angiogenesis in routine melanoma model using liposomal formulation of Coenzyme Q10.

L6 ANSWER 9 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Coenzyme Q10: A novel bcl-2 drug target for the treatment of melanoma.

L6 ANSWER 10 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Coenzyme Q10 attenuates angiogenesis in melanoma.

L6 ANSWER 11 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Coenzyme Q10 induces apoptosis in human melanoma cells.

L6 ANSWER 12 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Topical formulation of coenzyme Q10 inhibits the growth of melanoma tumors.

L6 ANSWER 13 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Coenzyme Q10 inhibits the proliferation of oncogenic cells while stabilizing growth in primary cells in vitro.

L6 ANSWER 14 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Potential antitumor effects of statins (review).

L6 ANSWER 15 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Detection of mitochondrial DNA mutations in non-melanoma skin cancer: Possible genetic selection in tumorigenesis.

L6 ANSWER 16 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Atrophie blanche associated with interferon-alfa adjuvant therapy for melanoma: A cutaneous side effect related to the procoagulant activity of interferon?.



L6 ANSWER 17 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI A high-resolution integrated map spanning the SDHD gene at 11q23: A 1.1-Mb BAC contig, a partial transcript map and 15 new repeat polymorphisms in a tumour-suppressor region.

L6 ANSWER 18 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Alteration of antioxidants in normal melanocytes from patients with melanoma.

L6 ANSWER 19 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI Imbalance in the antioxidant pool in melanoma cells and normal melanocytes from patients with melanoma.

L6 ANSWER 20 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI HIGH ACTIVITY OF MITOCHONDRIAL GLYCEROL PHOSPHATE DEHYDROGENASE IN INSULINOMAS AND CARCINOID AND OTHER TUMORS OF THE AMINE PRECURSOR UPTAKE DECARBOXYLATION SYSTEM.

L6 ANSWER 21 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI CYTOTOXIC EFFECT OF 1 METHYL-4-PHENYLPYRIDINIUM ION ON HUMAN MELANOMA CELL LINES HMV-II AND SK-MEL-44 IS DEPENDENT ON THE MELANIN CONTENTS AND CAUSED BY INHIBITION OF MITOCHONDRIAL ELECTRON TRANSPORT.

L6 ANSWER 22 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI STUDIES OF THE SPECIFIC ACTION OF CISPLATIN ON MITOCHONDRIAL DNA AND RESPIRATORY FUNCTIONS IN HUMAN MALIGNANT MELANOMA FROM GINGIVA.

L6 ANSWER 23 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 TI PREFERENTIAL BINDING OF CISPLATIN TO MITOCHONDRIAL DNA AND SUPPRESSION OF ATP GENERATION IN HUMAN MALIGNANT MELANOMA CELLS.

L6 ANSWER 24 OF 41 MEDLINE on STN  
 TI Involvement of oxidative stress in simvastatin-induced apoptosis of murine CT26 colon carcinoma cells.

L6 ANSWER 25 OF 41 MEDLINE on STN  
 TI Investigating idebenone and idebenone linoleate metabolism: in vitro pig ear and mouse melanocyte studies.

L6 ANSWER 26 OF 41 MEDLINE on STN  
 TI Quinones are reduced by 6-tetrahydrobiopterin in human keratinocytes, melanocytes, and melanoma cells.

L6 ANSWER 27 OF 41 MEDLINE on STN  
 TI Recombinant interferon alpha-2b and coenzyme Q10 as a postsurgical adjuvant therapy for melanoma: a 3-year trial with recombinant interferon-alpha and 5-year follow-up.

L6 ANSWER 28 OF 41 MEDLINE on STN  
 TI Low plasma coenzyme Q10 levels as an independent prognostic factor for melanoma progression.

L6 ANSWER 29 OF 41 MEDLINE on STN

TI Potential antitumor effects of statins (Review).

L6 ANSWER 30 OF 41 MEDLINE on STN

TI Activation of caspases and cleavage of Bid are required for tyrosine and phenylalanine deficiency-induced apoptosis of human A375 melanoma cells.

L6 ANSWER 31 OF 41 MEDLINE on STN

TI A high-resolution integrated map spanning the SDHD gene at 11q23: a 1.1-Mb BAC contig, a partial transcript map and 15 new repeat polymorphisms in a tumour-suppressor region.

L6 ANSWER 32 OF 41 MEDLINE on STN

TI Imbalance in the antioxidant pool in melanoma cells and normal melanocytes from patients with melanoma.

L6 ANSWER 33 OF 41 MEDLINE on STN

TI High activity of mitochondrial glycerol phosphate dehydrogenase in insulinomas and carcinoid and other tumors of the amine precursor uptake decarboxylation system.

L6 ANSWER 34 OF 41 MEDLINE on STN

TI Cytotoxic effect of 1-methyl-4-phenylpyridinium ion on human melanoma cell lines, HMV-II and SK-MEL-44, is dependent on the melanin contents and caused by inhibition of mitochondrial electron transport.

L6 ANSWER 35 OF 41 MEDLINE on STN

TI Preferential binding of cisplatin to mitochondrial DNA and suppression of ATP generation in human malignant melanoma cells.

L6 ANSWER 36 OF 41 MEDLINE on STN

TI Biological activity and mode of action of some dihydroorotic and dihydroazaorotic acid derivatives.

L6 ANSWER 37 OF 41 MEDLINE on STN

TI Immunostimulation. Clinical and experimental perspectives.

L6 ANSWER 38 OF 41 MEDLINE on STN

TI Enhancing effect of coenzyme, Q10 on immunorestitution with Mycobacterium bovis BCG in tumor-bearing mice.

L6 ANSWER 39 OF 41 MEDLINE on STN

TI [On the histochemical distribution of ubiquinone in the human skin. II. Pathologically altered skin and skin tumors].  
Über die Histotopie von Ubichinon in menschlicher Haut. II. Pathologisch veränderte Haut und Hauttumoren.

L6 ANSWER 40 OF 41 MEDLINE on STN

TI Ubiquinone concentrations in some tumour-bearing tissues. Ubiquinone concentrations in tumours and some normal tissues in man.

L6 ANSWER 41 OF 41 MEDLINE on STN

TI An attempt to develop a radioactive drug.

=> d ibib abs 2, 5-8, 10-13, 18, 19, 26, 40

L6 ANSWER 2 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2009:494884 BIOSIS  
 DOCUMENT NUMBER: PREV200900495987  
 TITLE: Apoptotic affect of Ubiquinone precursors in melanoma.  
 AUTHOR(S): Persaud, Indushekhar [Reprint Author]; McCook, John P.;

Alarcon, Maria E.; Bhangu, Thara; Cepero, Maria; Narain, Niven R.  
CORPORATE SOURCE: Univ Miami, Miami, FL USA  
SOURCE: Proceedings of the American Association for Cancer Research  
Annual Meeting, (APR 2009) Vol. 50, pp. 794.  
Meeting Info.: 100th Annual Meeting of the  
American-Association-for-Cancer-Research. Denver, CA, USA.  
April 18 -22, 2009. Amer Assoc Canc Res.  
ISSN: 0197-016X.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 19 Aug 2009  
Last Updated on STN: 19 Aug 2009

L6 ANSWER 5 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
ACCESSION NUMBER: 2008:225822 BIOSIS  
DOCUMENT NUMBER: PREV200800223735  
TITLE: Quinones are reduced by 6-tetrahydrobiopterin in human  
keratinocytes, melanocytes, and melanoma cells.  
AUTHOR(S): Schallreuter, Karin U. [Reprint Author]; Rokos, Hartmut;  
Chavan, Bhaven; Gillbro, Johanna M.; Cemeli, Eduardo;  
Zothner, Carsten; Anderson, Diana; Wood, John M.  
CORPORATE SOURCE: Univ Bradford, Dept Biomed Sci, Bradford BD7 1DP, W  
Yorkshire, UK  
K.Schallreuter@Bradford.ac.uk  
SOURCE: Free Radical Biology &  
Medicine, (FEB 15 2008) Vol. 44, No.  
4, pp. 538-546.  
CODEN: FRBMEH. ISSN: 0891-5849.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 26 Mar 2008  
Last Updated on STN: 26 Mar 2008

AB Quinones are potentially dangerous substances generated from quinols via  
the intermediates serniquinone and hydrogen peroxide. Low serniquinone  
radical concentrations are acting as radical scavengers while high  
concentrations produce reactive oxygen species and quitiones, leading to  
oxidative stress, apoptosis, and/or DNA damage. Recently it was  
recognised that thioredoxin reductase/thioredoxin (TR/T) reduces both p-  
and o-quinones. In this report we examine additional reduction mechanisms  
for p- and o-quinones generated from hydroquinone (HQ) and coenzyme  
Q10 and by 17 beta-estradiol by the common cofactor  
6(R)-L-erythro-5,6,7,8-tetrahydrobiopterin (6BH(4)). Our results  
confirmed that TR reduces the p-quinone 1,4 benzoquinone and coenzyme  
Q10-quinone back to HQ and coenzyme Q10-quinol, respectively, while  
6BH(4) has the capacity to reduce coenzyme Q10-quinone and the  
o-quinone produced from 17 beta-estradiol. 6BH4 is present in the cytosol  
and in the nucleus of epidermal melanocytes and keratinocytes as well as  
melanoma cells and colocalises with TR/T. Therefore we conclude that  
both mechanisms are major players in the prevention of quinone-mediated  
oxidative stress and DNA damage. (c) 2007 Published by Elsevier Inc.

L6 ANSWER 6 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
ACCESSION NUMBER: 2008:37303 BIOSIS  
DOCUMENT NUMBER: PREV200800040964  
TITLE: Clinical complete long-term remission of a patient with  
metastatic malignant melanoma under therapy with  
indisulam (E7070).  
AUTHOR(S): Baur, Martina; Gneist, Margit; Owa, Takashi; Dittrich,  
Christian [Reprint Author]

CORPORATE SOURCE: Kaiser Franz Josef Spital, Ctr Oncol and Haematol, Ludwig Boltzmann Inst Appl Canc Res, Dept Med 3, Kundratstr 3, A-1100 Vienna, Austria  
christian.dittrich@wienkav.at  
SOURCE: Melanoma Research, (OCT 2007) Vol. 17, No. 5, pp. 329-331.  
ISSN: 0960-8931.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 27 Dec 2007  
Last Updated on STN: 27 Dec 2007

AB The objective of this study is to report on long-term survival of a patient with metastatic melanoma treated with indisulam showing a distinct genetic pattern of repression of subsets of genes involved in mitochondrial energy metabolism. Gene expression profiling was performed with oligonucleotide microarray analysis. A 45-year-old patient with metastatic malignant melanoma was treated in third-line with indisulam (goal, E7070), a new chloroindolylsulphonamide cell-cycle inhibitor. The patient was treated weekly with a dose of 40 mg/m<sup>2</sup> within a phase 1 study. On the basis of an amendment, the dose was escalated to 320 mg/m<sup>2</sup> at maximum and de-escalated to 160 mg/m<sup>2</sup> for long-term application in this individual patient. At the start of treatment the tumour burden consisted of two-intransit-metastases, two further skin lesions, two cervical lymph nodes and four pulmonary metastases. Under a 2.5year treatment with indisulam the tumour shrunk markedly although the objective response only reached stable disease. Lymph node biopsy revealed absence of vital melanoma cells. Therapy was stopped upon request of the patient. The gene expression profile indicated a profound transcriptional repression of subsets of genes involved in mitochondrial energy metabolism; namely NDUFB8, NDUFS1, NDUFV1, ACADVL and Homo sapiens clone 24408. The survival of this patient with metastatic melanoma lasted now 9 years, the progression-free interval 105 months. It can be assumed that this treatment effect is attributed to the down-regulating effect of indisulam on metabolic genes involved in energy production. Thus, knowledge on individual's tumour gene regulation may predict sensitivity and resistance to antitumoural agents.

L6 ANSWER 7 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
ACCESSION NUMBER: 2007:425471 BIOSIS  
DOCUMENT NUMBER: PREV200700424290  
TITLE: Recombinant interferon alpha-2b and coenzyme Q(10) as a postsurgical adjuvant therapy for melanoma: a 3-year trial with recombinant interferon-alpha and 5-year follow-up.  
AUTHOR(S): Rusciani, Luigi; Proietti, Ilaria; Paradisi, Andrea [Reprint Author]; Rusciani, Antonio; Guerriero, Giuseppe; Mammone, Alessia; De Gaetano, Andrea; Lippa, Silvio  
CORPORATE SOURCE: Univ Cattolica Sacro Cuore, Dept Dermatol, Lgo A Gemelli 8, I-00168 Rome, Italy  
aparad@tin.it  
SOURCE: Melanoma Research, (JUN 2007) Vol. 17, No. 3, pp. 177-183.  
ISSN: 0960-8931.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 8 Aug 2007  
Last Updated on STN: 8 Aug 2007

AB Early surgical intervention remains the most successful therapy for melanoma. Despite better outcomes observed in soft tissue and lymph node metastases, the results of pharmacological therapies are still disappointing. Currently, there is no standard adjuvant therapy for melanoma. Low concentrations of coenzyme Q(10) have been demonstrated in melanoma cell lines and in sera of melanoma patients.

These data and the results of clinical trials of patients with other advanced cancers prompted this study of the long-term administration of an optimized dose of recombinant interferon alpha-2b and coenzyme Q(10) to patients with stage I and II melanoma. A 3-year trial envisaging uninterrupted treatment with low-dose recombinant interferon alpha-2b (9 000 000 000 IU weekly) administered twice daily and coenzyme Q(10) (400 mg/day) was conducted in patients with stage I and II melanoma (American Joint Committee on Cancer criteria 2002) and surgically removed lesions. Treatment efficacy was evaluated as incidence of recurrences at 5 years. All patients completed the treatment and the follow-up. Significantly different rates of disease progression were observed in the interferon + coenzyme Q(10) and the interferon group for both stages. No patient withdrew from the study owing to side effects. Long-term administration of an optimized dose of recombinant interferon alpha-2b in combination with coenzyme Q(10) seemed to induce significantly decreased rates of recurrence and had negligible adverse effects. A survival study could not be undertaken owing to the small patient sample and the short duration of follow-up. Melanoma Res 17:177-183 (C) 2007 Lippincott Williams & Wilkins.

L6 ANSWER 8 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2006:584351 BIOSIS  
 DOCUMENT NUMBER: PREV200600594977  
 TITLE: Attenuation of tumor angiogenesis in routine melanoma model using liposomal formulation of Coenzyme Q10.  
 AUTHOR(S): Persaud, Indushekhar [Reprint Author]; Narain, Niven R.; Woan, Winston; Russell, Kathryn J.; Malik, Lindsey J.; Ricotti, Carlos A.; Li, Jie; Elgart, George; Hsia, Sung L.  
 CORPORATE SOURCE: Univ Miami, Miami, FL 33152 USA  
 SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (APR 2006) Vol. 47, pp. 230.  
 Meeting Info.: 97th Annual Meeting of the American-Association-for-Cancer-Research (AACR). Washington, DC, USA. April 01 -05, 2006. Amer Assoc Canc Res.  
 ISSN: 0197-016X.  
 DOCUMENT TYPE: Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 8 Nov 2006  
 Last Updated on STN: 8 Nov 2006

L6 ANSWER 10 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2005:405818 BIOSIS  
 DOCUMENT NUMBER: PREV200510197637  
 TITLE: Coenzyme Q10 attenuates angiogenesis in melanoma.  
 AUTHOR(S): Narain, N. R. [Reprint Author]; Elgart, G. W.; Persaud, I.; Woan, K. V.; Russell, K. J.; Malik, L. H.; Li, J.; Hsia, S. L.  
 CORPORATE SOURCE: Univ Miami, Miller Sch Med, Miami, FL 33152 USA  
 SOURCE: Journal of Investigative Dermatology, (APR 2005) Vol. 124, No. 4, Suppl. S, pp. A24.  
 Meeting Info.: 66th Annual Meeting of the Society-for-Investigative-Dermatology. St Louis, MO, USA. May 04 -07, 2005. Soc Investigat Dermatol.  
 CODEN: JIDEAE. ISSN: 0022-202X.  
 DOCUMENT TYPE: Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 12 Oct 2005

Last Updated on STN: 12 Oct 2005

L6 ANSWER 11 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:319513 BIOSIS  
DOCUMENT NUMBER: PREV200510114908  
TITLE: Coenzyme Q10 induces apoptosis in human melanoma cells.  
AUTHOR(S): Narain, N. R. [Reprint Author]; Li, J.; Woan, K. V.;  
Russell, K. J.; Ochoa, M. S.; Persaud, I.; Fenjves, E. S.;  
Hsia, S. L.  
CORPORATE SOURCE: Univ Miami, Sch Med, Diabet Res Inst, Miami, FL USA  
SOURCE: Journal of Investigative Dermatology, (MAR 2004) Vol. 122,  
No. 3, pp. A160.  
Meeting Info.: 65th Annual Meeting of the  
Society-for-Investigative-Dermatology. Providence, RI, USA.  
April 28 -May 01, 2004. Soc Investigat Dermatol.  
CODEN: JIDEAE. ISSN: 0022-202X.  
DOCUMENT TYPE: Conference; (Meeting)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 25 Aug 2005  
Last Updated on STN: 28 Apr 2010

L6 ANSWER 12 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:319512 BIOSIS bad date  
DOCUMENT NUMBER: PREV200510114907  
TITLE: Topical formulation of coenzyme Q10 inhibits the growth  
of melanoma tumors.  
AUTHOR(S): Narain, N. R. [Reprint Author]; Li, J.; He, J.; Malik, L.  
H.; Russell, K. J.; Woan, K. V.; Persaud, I.; Hsia, S. L.  
CORPORATE SOURCE: Univ Miami, Sch Med, Miami, FL USA  
SOURCE: Journal of Investigative Dermatology, (MAR 2004) Vol. 122,  
No. 3, pp. A160.  
Meeting Info.: 65th Annual Meeting of the  
Society-for-Investigative-Dermatology. Providence, RI, USA.  
April 28 -May 01, 2004. Soc Investigat Dermatol.  
CODEN: JIDEAE. ISSN: 0022-202X.  
DOCUMENT TYPE: Conference; (Meeting)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 25 Aug 2005  
Last Updated on STN: 28 Apr 2010

L6 ANSWER 13 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:390480 BIOSIS bad date  
DOCUMENT NUMBER: PREV200400390557  
TITLE: Coenzyme Q10 inhibits the proliferation of oncogenic  
cells while stabilizing growth in primary cells in vitro.  
AUTHOR(S): Narain, N. R. [Reprint Author]; Li, J.; Russell, K. J.;  
Woan, K. V.; He, I.; Persaud, I.; Ricotti, C. A.; Fenjves,  
E. S.; Hsia, S. L.  
CORPORATE SOURCE: Sch MedDiabet Res Inst, Univ Miami, Miami, FL, 33152, USA  
SOURCE: Journal of Investigative Dermatology, (March 2004) Vol.  
122, No. 3, pp. A28. print.  
Meeting Info.: The 65th Annual Meeting of the Society for  
Investigative Dermatology. Providence, Rhode Island, USA.  
April 28-May 01, 2004. Society for Investigative  
Dermatology.  
ISSN: 0022-202X (ISSN print).  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English  
ENTRY DATE: Entered STN: 6 Oct 2004  
Last Updated on STN: 6 Oct 2004

L6 ANSWER 18 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on  
STN

ACCESSION NUMBER: 1996:497149 BIOSIS  
DOCUMENT NUMBER: PREV199699219505  
TITLE: Alteration of antioxidants in normal melanocytes from  
patients with melanoma.  
AUTHOR(S): Picardo, M. [Reprint author]; Grammatico, P.; Maresca, V.  
[Reprint author]; Roccella, M.; Roccella, R.; Passi, S.  
CORPORATE SOURCE: San Gallicano Dermatol. Inst., Rome, Italy  
SOURCE: Pigment Cell Research, (1996) Vol. 0, No. SUPPL. 5, pp.  
30-31.  
Meeting Info.: XVITH International Pigment Cell Conference.  
Anaheim, California, USA. October 29-November 3, 1996.  
CODEN: PCREEA. ISSN: 0893-5785.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 4 Nov 1996  
Last Updated on STN: 5 Nov 1996

L6 ANSWER 19 OF 41 BIOSIS COPYRIGHT (c) 2011 The Thomson Corporation on  
STN

ACCESSION NUMBER: 1996:463395 BIOSIS  
DOCUMENT NUMBER: PREV199699185751  
TITLE: Imbalance in the antioxidant pool in melanoma cells and  
normal melanocytes from patients with melanoma.  
AUTHOR(S): Picardo, Mauro [Reprint author]; Grammatico, Paola;  
Roccella, Francesca; Roccella, Maria; Grandinetti, Mauro;  
Del Porto, Giuseppe; Passi, Siro  
CORPORATE SOURCE: San Gallicano Dermatol. Inst., Via San Gallicano 25/a,  
I-00153 Rome, Italy  
SOURCE: Journal of Investigative Dermatology, (1996) Vol. 107, No.  
3, pp. 322-326.  
CODEN: JIDEAE. ISSN: 0022-202X.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 11 Oct 1996  
Last Updated on STN: 11 Oct 1996

AB In order to evaluate the free radical defense systems of melanocytes and  
their possible correlation with melanoma, we have studied in cultured  
normal human melanocytes (20), normal melanocytes from melanoma patients  
(15), and melanoma cells (40) the fatty acid pattern of membrane  
phospholipids as a target of peroxidative damage and the superoxide  
dismutase and catalase activities, vitamin E, and ubiquinone levels as  
intracellular antioxidants. Cells were cultured in the same medium and  
analyzed at III or IV passage. Compared to the values obtained in normal  
human melanocytes, melanoma cells showed on average: a) higher levels of  
polyunsaturated fatty acids, b) increased superoxide dismutase and  
decreased catalase activities, higher vitamin E, and lower ubiquinone  
levels. Among the normal melanocytes from melanoma patients studied,  
two groups were differentiated: a) cultures (7) with enzymatic and  
non-enzymatic antioxidants level similar to those of normal human  
melanocytes; b) cultures (8) with antioxidant patterns similar to those  
observed in melanoma cells. Polyunsaturated fatty acids were also  
increased in the latter group. The results indicate that in melanoma  
cells and in a percentage of normal melanocytes from melanoma patients,  
an imbalance in the antioxidant system can be detected that can lead to

endogenous generation of reactive oxygen species and to cellular incapability of coping with exogenous peroxidative attacks. These alterations could be correlated with the malignant transformation of cells and with the progression of the disease.

L6 ANSWER 26 OF 41 MEDLINE on STN  
ACCESSION NUMBER: 2008083533 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 17997383  
TITLE: Quinones are reduced by 6-tetrahydrobiopterin in human keratinocytes, melanocytes, and melanoma cells.  
AUTHOR: Schallreuter Karin U; Rokos Hartmut; Chavan Bhaven; Gillbro Johanna M; Cemeli Eduardo; Zothner Carsten; Anderson Diana; Wood John M  
CORPORATE SOURCE: Department of Biomedical Sciences, University of Bradford, Bradford, BD7 1DP, UK. K.Schallreuter@Bradford.ac.uk  
SOURCE: Free radical biology & medicine, (2008 Feb 15) Vol. 44, No. 4, pp. 538-46. Electronic Publication: 2007-11-12. Journal code: 8709159. ISSN: 0891-5849. L-ISSN: 0891-5849.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200803  
ENTRY DATE: Entered STN: 5 Feb 2008  
Last Updated on STN: 7 Mar 2008  
Entered Medline: 6 Mar 2008

AB Quinones are potentially dangerous substances generated from quinols via the intermediates semiquinone and hydrogen peroxide. Low semiquinone radical concentrations are acting as radical scavengers while high concentrations produce reactive oxygen species and quinones, leading to oxidative stress, apoptosis, and/or DNA damage. Recently it was recognised that thioredoxin reductase/thioredoxin (TR/T) reduces both p- and o-quinones. In this report we examine additional reduction mechanisms for p- and o-quinones generated from hydroquinone (HQ) and coenzyme Q10 and by 17beta-estradiol by the common cofactor 6(R)-L-erythro-5,6,7,8-tetrahydrobiopterin (6BH(4)). Our results confirmed that TR reduces the p-quinone 1,4 benzoquinone and coenzyme Q10-quinone back to HQ and coenzyme Q10-quinol, respectively, while 6BH(4) has the capacity to reduce coenzyme Q10-quinone and the o-quinone produced from 17beta-estradiol. 6BH(4) is present in the cytosol and in the nucleus of epidermal melanocytes and keratinocytes as well as melanoma cells and colocalises with TR/T. Therefore we conclude that both mechanisms are major players in the prevention of quinone-mediated oxidative stress and DNA damage.

L6 ANSWER 40 OF 41 MEDLINE on STN  
ACCESSION NUMBER: 1967081708 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 5225398  
TITLE: Ubiquinone concentrations in some tumour-bearing tissues. Ubiquinone concentrations in tumours and some normal tissues in man.  
AUTHOR: Chipperfield B  
SOURCE: Nature, (1966 Mar 19) Vol. 209, No. 5029, pp. 1207-8. Journal code: 0410462. ISSN: 0028-0836. L-ISSN: 0028-0836.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 196703



ENTRY DATE: Entered STN: 1 Jan 1990  
Last Updated on STN: 1 Jan 1990  
Entered Medline: 18 Mar 1967  
OS.CITING REF COUNT: 1 There are 1 MEDLINE records that cite this record

=> d his

(FILE 'HOME' ENTERED AT 15:18:16 ON 23 MAY 2011)

FILE 'REGISTRY' ENTERED AT 15:18:30 ON 23 MAY 2011  
L1 1 S COENZYME Q10/CN

FILE 'CAPLUS' ENTERED AT 15:20:55 ON 23 MAY 2011  
L2 17 S L1 AND MELANOMA

FILE 'BIOSIS, MEDLINE' ENTERED AT 15:31:13 ON 23 MAY 2011  
L3 7822 S COENZYME (A) Q?  
L4 17037 S UBIQUINONE OR UBIDECARENONE OR UBIQUINOL OR UBISEMIQUINONE  
L5 21419 S L3 OR L4  
L6 41 S L5 AND MELANOMA